

AMENDMENTS TO THE CLAIMS

1. (Original) A card reader comprising:
a card entrance;
a readout head for reading information recorded on a card inserted at the card entrance;
an output circuit for outputting information read by the readout head;
a card conveyance mechanism for discharging the card; and
an ultrasonic wave sensor for detecting whether a card is present outside the card entrance when the card is discharged by the card conveyance mechanism.
2. (Original) The card reader according to claim 1, wherein the ultrasonic wave sensor further detects whether a foreign body is present outside the card entrance.
3. (Original) The card reader according to claim 1, wherein a reflection type sensor is used in place of the ultrasonic wave sensor.
4. (Original) The card reader according to claim 1, wherein paths of transmission and reception of ultrasonic waves, along which ultrasonic waves are transmitted toward a surface of the card from a transmitter of the ultrasonic wave sensor, reflected by the surface of the card and received by a receiver, are substantially parallel to a surface of the card entrance.
5. (Original) A card reader comprising:
a card entrance;

a readout head for reading information recorded on a card inserted at the card entrance;

an output circuit for outputting information read by the readout head;

a card conveyance mechanism for discharging the card;

an ultrasonic wave sensor comprising a transmitter to transmit ultrasonic waves outside the card entrance and a receiver to receive reflected waves of ultrasonic waves from a body when the body is present at the card entrance;

a memory for storing as a reference duration a necessary duration from transmission of ultrasonic waves to reception in the case where a card is present outside the card entrance; and

an abnormality determination unit to make a comparison between said necessary duration at the time of reception of ultrasonic waves transmitted from the transmitter when the card conveyance mechanism discharges the card and the reference duration stored in the memory, and to output presence or absence of an abnormality on the basis of results of the comparison.

6. (Previously Presented) A card reader comprising:

a card entrance;

a readout head for reading information recorded on a card inserted at the card entrance;

an output circuit for outputting information read by the readout head;

a card conveyance mechanism for discharging the card; and

a sensor for detecting whether an object is present outside the card entrance;

wherein the sensor detects whether a foreign body is present as said object at a time of standby for card processing and stores a reference value, and

the sensor detects whether the card is present as said object when the card conveyance mechanism discharges the card by comparing a discharge value to said reference value.

7. (Original) The card reader according to claim 6, wherein at the time of standby for card processing, an abnormality signal is output in the case where the sensor detects the presence of a foreign body; and

when the card conveyance mechanism discharges the card, an abnormality signal is output in the case where the sensor does not detect the presence of a card.

8. (Original) A transaction processing apparatus comprising:
a card entrance;

a readout head for reading information recorded on a card inserted at the card entrance;

an output circuit for outputting information read by the readout head;

a transaction processing unit for performing a transaction processing on the basis of information from the output circuit;

a card conveyance mechanism for discharging the card in the case where the transaction processing unit completes transaction; and

an ultrasonic wave sensor for detecting whether the card is present outside the card entrance when the card is discharged by the card conveyance mechanism.

9. (Previously Presented) A transaction processing apparatus comprising:
a card entrance;
a readout head for reading information recorded on a card inserted at the card entrance;

an output circuit for outputting information read by the readout head;

a transaction processing unit for performing a transaction processing on the basis of information from the output circuit;

a card conveyance mechanism for discharging the card when the transaction processing unit completes a transaction; and

an ultrasonic wave sensor for detecting whether the card is present outside the card entrance when the card is discharged by the card conveyance mechanism, said ultrasonic wave sensor comprises a transmitter for transmitting an ultrasonic signal, a receiver for receiving a reflection signal of said ultrasonic signal, a reference duration memory and an ultrasonic wave sensor signal processing circuit which uses said reflection signal and information in said memory to determine if said card is outside said card entrance.